

# **MEENAKSHI COLLEGE OF ENGINEERING**

**B.TECH-INFORMATION TECHNOLOGY**

**DATA ANALYTICS**

**LITERATURE SURVEY**

**VISUALIZING AND PREDICTING HEART  
DISEASES WITH AN INTERACTIVE DASH  
BOARD**

**TEAM ID PNT2022TMID27777**

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PAPERS	PARAMETER	DESCRIPTION
1.Base paper	<p><b>1.Aim:</b> Predict heart disease and monitoring current health condition of heart.</p> <p><b>2.Abstract:</b> To predict the heart disease, K-means clustering algorithm is used along with data analytics and visualization tool. The paper discusses the pre-processing methods, classifier performances and evaluation metrics. In the result section, the visualized data shows that the prediction is accurate.</p> <p><b>3.existing system:</b> Importance of this article is to predict and analyze the heart related syndrome in patients, based on one of the main feature, like age, where data scientists can do predictive research on big data to early analysis on heart syndrome to save the life of the patients. In this case study many features are well thought-out to do AN analysis and predict of heart diseases in patients,</p>	<p>Healthcare industries generate enormous amount of data, so called big data that accommodates hidden knowledge or pattern for decision making. The huge volume of data is used to make decision which is more accurate than intuition. Exploratory Data Analysis (EDA) detects mistakes, finds appropriate data, checks assumptions and determines the correlation among the explanatory variables. In the context, EDA is considered as analysing data that excludes inferences and statistical modelling. Analytics is an essential technique for any profession as it forecast the future and</p>

here author checked with prediction of data using many machine learning algorithm are used to verify the performance of syndrome.

#### **4.proposed system:**

The risk factors that causes heart disease is considered and predicted using K-means algorithm and the analysis is carried out using a publicly available data for heart disease. The dataset holds 209 records with 8 attributes such as age, chest pain type, blood pressure, blood glucose level, ECG in rest, heart rate and four types of chest pain

#### **5.advantages:**

1. more accurate
2. detect mistakes
3. find appropriate data.

#### **6.Disadvantage:**

1. High maintenance of dataset
2. Complex

hidden pattern. Data analytics is considered as a cost effective technology in the recent past and it plays an essential role in healthcare which includes new research findings, emergency situations and outbreaks of disease. The use of analytics in healthcare improves care by facilitating preventive care and EDA is a vital step while analysing data. In this paper, the risk factors that causes heart disease is considered and predicted using K-means algorithm and the analysis is carried out using a publicly available data for heart disease. The dataset holds 209 records with 8 attributes such as age, chest pain type, blood pressure, blood

		<p>glucose level, ECG in rest, heart rate and four types of chest pain. To predict the heart disease, K-means clustering algorithm is used along with data analytics and visualization tool. The paper discusses the pre-processing methods, classifier performances and evaluation metrics. In the result section, the visualized data shows that the prediction is accurate.</p>
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## **2.Reference paper-**

### **1.Existing system:**

The neural networks can be used as classifiers predict the diagnosis of Cardiovascular Heart disease. This research has explored neural networks, where it has analyzed many optimizing algorithms and weight initializing techniques in this research. In order to compare results, further analysis has been done and results are compared with performance of other classifiers.

### **2.proposed system**

In order to prevent normal man to go with complex invasive based diagnosis of the heart disease, a non-invasive medical decision support system based on machine learning predictive models (data science classifiers)is to be designed.

### **Advantages:**

Different classifiers namely SVM, KNN, ANN, DT, LR, AB, NB, and FL are to be understood and a hybrid model is proposed so that it could reach peak accuracy and satisfactory.

### **Disadvantage:**

Very expensive, computationally complex little mistake can cause fatigue problem.

### **3. Reference :**

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- [2] Dr.A.V.Senthil Kumar, “Heart Disease Prediction Using Data Mining preprocessing and Hierarchical Clustering”, International Journal of Advanced Trends in Computer Science and Engineering, Volume-4, No.6, pp.07-18, 2015.
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- [6] A. L. Bui, T. B. Horwich, and G. C. Fonarow, “Epidemiology and risk profile of heart failure,” Nature Reviews Cardiology, vol. 8, no. 1, pp. 30–41, 2011.

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- [4] Towardsdatascience.com. 2020. Predicting presence of Heart Diseases using Machine Learning. [ONLINE] Available at: <https://towardsdatascience.com/predicting-presence-of-heart-diseasesusing-machine-learning-36f00f3edb2c>. [Accessed 28 January 2020]
- [5] Datasciencebowl. 2020. Transforming how we measure heart disease. [ONLINE] Available at: <https://datasciencebowl.com/transforminghow-we-diagnose-heart-disease/>. [Accessed 2 February 2020]